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EXAMINER	
PALENIK, JEFFREY T	

ART UNIT	PAPER NUMBER
1615	

NOTIFICATION DATE	DELIVERY MODE
06/09/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/529,207	KIDOKORO ET AL.	
	Examiner	Art Unit	
	Jeffrey T. Palenik	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 February 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 8-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 8-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *23 APR 2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

STATUS OF THE APPLICATION

Applicants' amendments and remarks, filed 23 February 2009 regarding Application N° 10/529,207, are acknowledged and entered on the record. The Examiner acknowledges the following:

Claim 2 was previously cancelled and claims 3-7 are newly cancelled.

No new claims have been added.

Claim 1 has been amended to incorporate the limitations of cancelled claim 7. Additional support for the amendment is provided on page 5 of the specification (see Remarks, pg. 4).

The Examiner acknowledges that no new matter has been added to the claims.

Thus, claims 1 and 8-12 now represent all claims currently under consideration.

INFORMATION DISCLOSURE STATEMENT

One new Information Disclosure Statement (IDS), filed 23 April 2009, is acknowledged and has been reviewed.

WITHDRAWN OBJECTIONS/REJECTIONS

Rejections under 35 USC 112

Applicants' amendments to claim 1, render moot the **new matter** rejection to independent 1 and dependent claims 8-12, under 35 USC 112, first paragraph. Thus, said rejection has been **withdrawn**.

MAINTAINED REJECTIONS

The following rejection is maintained from the previous Office Correspondence dated 22 October 2008 since the art which was previously cited continues to read on the claims as presently amended.

CLAIM REJECTIONS - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1 and 3-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami et al. (WO 98/02185).

The instant claims 1 and 3 are directed to a particulate comprising pantethine, light anhydrous silicic acid and microcrystalline cellulose, as discussed above. The limitation recited in claim 3 wherein the adsorptivity range of the composition is further limited to 0.6-0.7, is also considered by the Examiner as a property of the composition for the reasons discussed above.

Ratios and proportions of the components to one another are recited (claims 4-7). Percentages of pantethine by weight of the composition are recited (claims 8 and 9). A range for the average particle size of the composition is recited (claim 10). Independent claim 11 recites a solid dosage form comprising the particulate composition of claim 1. Claim 12 further limits said form to one such as powders, granules or tablets.

The previously presented teachings of Murakami et al. regarding claims 1 and 3-7 are incorporated here for Applicants' convenience:

Murakami et al. teaches a compression-molded material comprising an excipient (claim 1), further comprising additives such as diluents, which can be light anhydrous silicic acid (col. 7, lines 13-24) and further comprising an active ingredient such as vitamins (claims 12 and 13), which can be pantethine (col. 5, line 67). Claim 10 further teaches that the excipient used may be microcrystalline cellulose. Methods 2 and 3 (col. 8, lines 6-24) teach dry and wet granulation-tabletting methods, respectively, wherein each of the aforementioned ingredients is incorporated into a compressed tablet form and then crushed to form particulate material.

However, Murakami does not teach the specific adsorptivity values, ratios or ranges of the composition of the instant claims 2-7. Murakami does provide that "[n]o limitation is imposed on the pharmaceutical active ingredients which may be used in the present invention, and they may be added in accordance with intended uses" (col. 5, line 54-58). Table 15 of Example 13 provides an embodiment whereby the combination of the diluent (i.e. D-mannitol) and the excipient (i.e. microcrystalline cellulose) is present in a ratio of about 0.6:1 with the active ingredient (i.e. Cimetidine). Table 15 also demonstrates a 1:2.5 ratio of the diluent to the excipient within the composition. Since the amount of each ingredient of the granulated

composition is adjustable, it follows that each is a result-effective parameter that a person having ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ. It would have been customary for an artisan of ordinary skill to determine the optimal type and amount of active ingredient and diluent to add to the excipient composition in order to best achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, optimization of any of these ingredient amounts would have been obvious at the time of Applicant's invention.

Murakami further expressly teaches that the presence of the active ingredient in the composition is at least 50% by weight and/or present in a range from 50-60% by weight (col. 7, lines 6-9). The methods of preparation (col. 8, lines 6-24) teach the formation of granules. Claim 16 teaches a formation of the composition into a solid dosage form such as a tablet.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make a composition comprising pantethine, light anhydrous silicic acid and microcrystalline cellulose, as suggested by Murakami, modify the levels or proportions of the ingredients, and produce the instant solid dosage form invention.

One of ordinary skill in the art would have been motivated to do this because Murakami expressly teaches methods for producing solid dose forms (e.g. granules) using the general components which are instantly claimed, notably an excipient, an additive and an active ingredient, which are further expressly taught, as discussed above. One with ordinary skill in the art would vary the levels of these materials as well as the granule size, within the ranges taught

by Murakami, during the process of routine experimentation in order to optimize properties such as the release profile of the pantethine.

The reference does not expressly teach the average particle size range, as claimed by Applicants. Since the values and formats of each parameter with respect to the claimed composition are adjustable, it follows that each is a result-effective parameter that a person having ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ. For example, Examples 1 and 5 expressly teach sieving of prepared granules using a #16 mesh screen, ensuring granule size of 1,000 microns or smaller. Thus, it would have been customary for an artisan of ordinary skill, to employ a range of different sized mesh screens, such as from a #60 mesh to a #120 mesh or a metric range of 125-250 microns (see Particle size-Sieve mesh conversion chart at www.sigmaaldrich.com), as a way to optimally size the granules compressed within the composition. Thus, absent some demonstration of unexpected results from the claimed parameters, optimization of any of these parameters would have been obvious at the time of Applicants' invention.

From the teachings of the reference, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the reference, especially in the absence of evidence to the contrary.

RESPONSE TO ARGUMENTS

Applicants' arguments with regard to the rejection of claims 1 and 8-12 under 35 USC 103(a) as being unpatentable over the teachings of Murakami et al. have been fully considered but they are not persuasive.

Applicants assert that Murakami neither teaches nor suggests the instantly claimed particulate compositions, wherein all three ingredients (e.g. pantethine, a light anhydrous silicic acid, and a microcrystalline cellulose) are contained within the same particulate.

In response, the Examiner respectfully disagrees and maintains that Murakami expressly teaches methods by which particles (e.g. granules) are formed which comprise: an excipient, pharmaceutically active agent and additives. The Examiner directs Applicants to Methods 2 and 3 in column 8 of Murakami. Of particular note is Method 2, which mixes the reagents together and compresses the resulting flakes into a tablet or slug, which is then crushed to form the desired granules. Admixture of the resulting granules with the aforementioned additives (e.g. binders) allow for the granules to be compressed once again; this time forming end-use tablets.

Applicants' further assert that the Murakami teaches away from the instantly claimed invention on the grounds that "[e]rythritol is a necessary component of the reference composition" (see pg. 6, Remarks, ¶2).

In response, the Examiner respectfully submits that Applicants' claims are drawn to a composition which *comprises*: pantethine, a light anhydrous silicic acid, and a microcrystalline cellulose [*emphasis added*]. Per MPEP §2111.03, the term "comprising" is "inclusive or open-ended and does not exclude additional, unrecited elements". As such, the inclusion of erythritol

in the reference composition is irrelevant. Furthermore, erythritol is taught as a sweetener compound which is included as an excipient which conveys an aesthetic effect. Stated another way, the sweetener used by Murakami contributes nothing to nor does it interfere with the critical functionality of the composition (i.e. the pharmaceutical agent) other than to mask a potentially displeasing taste.

Lastly, Applicants argue that Murakami is directed to a product "which has properties such as sufficient hardness, speedy disintegration and solubility, whereas the claimed invention is directed to a particulate which is free-flowing and stable" (see Remarks, pg. 7, ¶1).

In response to Applicants' argument that the references fail to show certain features of Applicants' invention, it is noted that the features upon which applicant relies (i.e., hardness, disintegration and solubility properties) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims (see MPEP §2111). See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

For these reasons, Applicants' arguments are found unpersuasive. Said rejection is therefore **maintained**.

All claims under consideration remain rejected; no claims are allowed.

CONCLUSION

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

CORRESPONDENCE

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey T. Palenik whose telephone number is (571) 270-1966. The examiner can normally be reached on 7:30 am - 5:00 pm; M-F (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Michael Woodward can be reached on (571) 272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrey T. Palenik/
Examiner, Art Unit 1615

/MP WOODWARD/
Supervisory Patent Examiner, Art Unit 1615